

CLAIMS

1. An ad hoc network for dynamic process assignment among a plurality
5 of devices, the ad hoc network comprising:
a first device, wherein the first device functions as a resource manager,
and further wherein the first device includes a list of available resources for
each device of the plurality of devices; and
a second device, wherein the second device requests the use of a
10 desired resource,
wherein, the first device, in response to the request from the second
device identifies an available resource associated with one of the plurality of
devices for use by the second device as the desired resource.
- 15 2. The ad hoc network for dynamic process assignment as recited in
Claim 1 wherein the first device instructs the one of the plurality of devices to
allow the use of its available resource by the second device in response to the
first device identifying the available resource.
- 20 3. The ad hoc network for dynamic process assignment as recited in
Claim 1 further comprising a smart network access point, wherein the smart
network access point functions as the resource manager.

4. The ad hoc network for dynamic process assignment as recited in Claim 3, wherein the smart network access point comprises:

an ad hoc network interface,

5 a secondary system interface,

a processor coupled between the ad hoc network interface and the secondary system interface, wherein the processor functions as a transformer between the ad hoc network interface and the secondary system, and

10 a resource management application coupled to the processor, wherein the resource management application includes a resource-tracking list having a plurality of resource information for each of the plurality of devices of the ad hoc network.

15 5. The ad hoc network for dynamic process alignment as recited in Claim 1 wherein at least one of the plurality of devices operates using a short -range wireless local area network protocol.

20 6. The ad hoc network for dynamic process alignment as recited in Claim 5 wherein the short -range wireless local area network protocol is a Bluetooth protocol.

25 7. The ad hoc network for dynamic process alignment as recited in Claim 1 wherein the resource manager collects and automatically provides the list of available resources to the plurality of devices, and further wherein each of the plurality of devices stores the list of available resources.

8. A communication system for dynamic process assignment comprising:
a secondary protocol system; and
a short-range wireless local area network protocol system including a
5 plurality of devices, the short-range local area network protocol system
comprising:

a first device, wherein the first device functions as a
resource manager, and further wherein the first device includes a
list of available resources for each device of the plurality of
10 devices; and

a second device, wherein the second device requests the
use of a desired resource,

wherein, the first device, in response to the request from the
second device identifies an available resource associated with one
15 of the plurality of devices for use by the second device as the
desired resource.

9. The communication system for dynamic process assignment as recited
in Claim 8 wherein the short -range wireless local area network protocol
20 system operates using a Bluetooth protocol.

10. The communication system for dynamic process assignment as recited
in Claim 8 wherein the resource manager collects and automatically provides
the list of available resources to the plurality of devices, and further wherein
25 each of the plurality of devices stores the list of available resources.

11. The communication system for dynamic process assignment as recited
in Claim 8 wherein the first device, in response to the request from the second
device identifies an available resource associated with the secondary protocol
30 system for use by the second device as the desired resource.

12. The communication system for dynamic process assignment as recited in Claim 8 further comprising a smart network access point, wherein the smart network access point functions as the resource manager.

5 13. The communication system for dynamic process assignment as recited in Claim 12, wherein the smart network access point comprises:

an ad hoc network interface,

a secondary system interface,

a processor coupled between the ad hoc network interface and the

10 secondary system interface, wherein the processor functions as a transformer between the ad hoc network interface and the secondary system, and

a resource management application coupled to the processor, wherein the resource management application includes a resource-tracking list having a plurality of resource information for each of the plurality of devices of the ad
15 hoc network.

14. Within an ad hoc network, a method for dynamic process assignment among a plurality of devices, the method comprising:

20 requesting a desired resource by a requesting device sending a resource request signal;

identifying an available resource of a resource device within the plurality of devices corresponding to the desired resource;

sending a polling resource signal to the resource device to confirm the use of the available resource by the requesting device;

25 sending a confirmation signal by the resource device to the requesting device.

15. The method for dynamic process assignment among a plurality of devices as recited in Claim 14 wherein the sending a polling resource signal
30 step further comprises confirming the availability of the resource device within the ad hoc network.

16. The method for dynamic process assignment among a plurality of devices as recited in Claim 14 further comprising the step of sending a level of available resources signal by the resource device to the requesting device prior to the sending a confirmation signal step.

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17. Within an ad hoc network, a method for dynamic process assignment among a plurality of devices including an initial coordinator, a requesting device, and a resource device, the method comprising:

polling the requesting device by the initial coordinator transmitting a
10 polling signal in an occupied bandwidth;

requesting a desired resource by a requesting device sending a resource request signal to the initial coordinator;

identifying an available resource of a resource device within the plurality of devices corresponding to the desired resource by the initial
15 coordinator;

sending a polling resource signal by the initial coordinator to the resource device to confirm the use of the available resource by the requesting device;

sending a confirmation signal by the resource device to the initial
20 coordinator; and

sending an acknowledgment signal including identification of the resource device by the initial coordinator to the requesting device.

18. The method for dynamic process assignment among a plurality of
25 devices as recited in Claim 17 wherein the occupied bandwidth of the polling step comprises a Bluetooth protocol.

19. The method for dynamic process assignment among a plurality of devices as recited in Claim 17 wherein the confirmation signal includes a list
30 of available resources within the resource device, the method further comprising:

exchanging the resource device for the initial coordinator when the resource device includes more available resources than the initial coordinator.

20. The method for dynamic process assignment among a plurality of devices as recited in Claim 17 further comprising:

5 searching a resource tracking list for an alternative resource by the initial coordinator when the confirmation signal by the resource device is negative before the acknowledgement step.

21. The method for dynamic process assignment among a plurality of devices as recited in Claim 17 further comprising:

10 identifying an alternative resource by identifying available resources within each of the plurality of devices by the initial coordinator when the confirmation signal by the resource device is negative before the acknowledgement step.

15 22. The method for dynamic process assignment among a plurality of devices as recited in Claim 21 wherein the available resources include processing power, access to an unlimited power source, access to a secondary protocol system, and an application capability.